

Your RED CROSS is at his side

GRAIN

MARCH 1944



THE GRAIN FUMIGANT

WITHOUT A Weak LINK



Weevil-Cide, the dependable grain fumigant, fully meets every fumigation requirement.

No odor or other bad effect on grain—Safe and convenient application—Consistency as to results
—Stability of formula—Great killing power—
No fire hazard—Economical.

And there are no "weak links"—!

IHt

Weevil-Cide
THE DEPENDABLE GRAIN FUMIGANT

COMPANY

IIIO HICKORY STREE KANSAS CITY, MI

CHOICE OF THE GRAIN TRADE

Four Killed; 16 Injured In \$1,000,000 Blow-Up

FREAKISH DUST EXPLOSION RENDS LARABEE'S OPERATIONS IN NORTH KANSAS CITY. REBUILDING BEING RUSHED.

A GRAIN elevator dust explosion, said to have originated in the third floor cleaning department of the Larabee Flour Mills Co.'s plant in North Kansas City, Mo., killed four and injured sixteen, many seriously. Loss to plant and contents of this Feb. 18th catastrophe is placed at \$1,000,000 by officials. There were two distinct blasts.

Occurring at 4:06 p.m., the holocaust wrecked the elevator headhouse, blew out the south end of the mill housing the cleaning department, and severely damaged several of the grain storage tanks. The filled tanks at the south end of this 1,000,000 bu. capacity elevator were moved as much as six inches off their original foundations.

Following an unusual course for a dust explosion, some say the blast backed up through an underground tunnel to vent itself in the headhouse of the adjoining elevator. Others claim the reverse. The smut room is also credited. The force also played fantastic tricks with several loaded or partially loaded box cars, as the pictures show. Smoke made the task of inspecting the balance of the plant quite difficult for 24 hours after the explosion, however the augmented fire department was still fighting the resultant blaze in the damaged section for 48 hours.

Some Window Freakishness

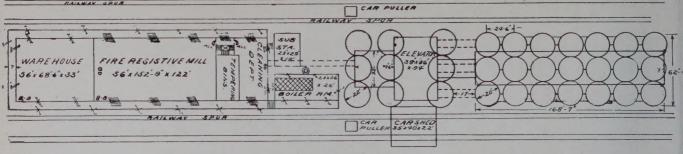
PRACTICALLY all the windows near the elevator end of the first three floors of the mill were blown out, frames and all. Those on the fifth floor, however, were sucked in. That force was exerted in every direction is indicated by the way several of

the piers at the back of the mill were blown clear of the plant and up to about the top of the second floor. The first three floors of this end of the mill fell with the explosion.

The top concrete slab housing the tunnel between the mill and elevator was blown off, as were the concrete caps of some bins—which skyrocketed. Spouting was flying every which way to add to the confusion. Damage to the head house was particularly complete from the scale floor up, with six foot square concrete slabs tossed around for horrifying distances.

Some of the steel hoppers in the elevator tunnel were blown off, allowing the grain to fall on the belts and in the basement, completely crippling all three belt conveyors. Some three or four cars of grain burst onto the ground when the three bins on the





rear end of the elevator were blown out at the bottom.

Lace-Cut Shoe Unmoved

ONE employe standing in the doorway of the elevator was carried away forty feet and killed. Where he had been standing, one shoe that he had worn was found with its laces cut in two. Two others were instantly killed, including the grain mixer and the state grain weigher. A fourth died of burns two days later.

James L. Brown, elevator Super, was in the office in the elevator basement near the structure housing the electrical equipment. He and his assistant dropped to the floor upon hearing the blast, only to have a door and a window fall on them. Fire immediately flashed in the wake, but the two covered their faces with their hats and fortunately escaped uninjured.

The seething flames that flashed through the plant caused many critical burns, particularly to those around the wheat cleaning machinery, as well as in the elevator. Blood plasma played a major role in the recovery of a number of the victims and doctors report their original fears of multiple blindness are abated. [Employes in other Kansas City plants have volunteered to replace the plasma with their own blood donations.]

Completely modern in most other respects, this busy plant is said not to have been equipped with the latest in complete dust control and explosion preventing equipment.

DUST EXPLOSIONS

The disastrous explosion in a Kansas City flour mill last month should act as a warning to all millers that the threat hangs over our heads at all times like a sword on a thin thread.

Do these newer employees know the seriousness of this threat? We don't want to be alarmists, but every person working in grain should be intelligently aware of the problems and should be on his toes for possible causes of explosions.

Above all—keep the elevators clean. Labor may be hard to get but it's better to shut down a few minutes every evening to clean up than to have an explosion that is increased by dust in the building.

With the nation and the world depending on our industry for food, we cannot afford to have a catastrophe that puts a plant out of service.—Exchange.

James Mackenzie

Born in Scotland in 1880, "Jim" Mackenzie came to Canada in 1905 and soon after his arrival entered the grain business with the Empire Elevator Co., Ltd., in Fort William. Starting in as a grain shoveler, in time he became foreman of the company's elevator in Port Arthur, the Thunder Bay Elevator.

In 1929 Jim became Superintendent of Toronto Elevators in Toronto. He held this position until 1936, when

Oats Plant Explosion

The rolled oats plant of the Western Canada Mills Co., Ltd., Calgary, suffered a dust explosion, followed by fire, on Mar. 13. One worker was injured.

Fire Wrecks Havoc

Fire destroyed two of the Missouri Farmers Ass'n's four feed mill and soybean processing plant buildings this month, doing \$280,000 damage. Starting atop one of the feed manufacturing units, the blaze consumed materials and equipment amidst an extensive remodeling program. Manager Maurice Maze believes the properties will be rebuilt.

MEET THE AXEES The Gremlins of Accidents



Better shun this brat named Pyro, Or you'll wake up with a cry of "Fire—Oh!"

He brings trouble in large batches With his cigarettes and matches. Be sure that you're alert enough To keep him out—for he's hot stuff!

NATIONAL SAFETY COUNCIL

he left for Three Rivers, Que., to assume the position of Superintendent with the Three Rivers Grain and Ele-

vator Co., Ltd. Arriving in Three Rivers with only three experienced elevator men on his staff, the business turned over by the elevator and the manner in which all the staff rallied around him attests to his capa-



bilities as a Superintendent. He was always a square shooter, and even the newest grain shoveler invariably received his cheery welcome.

Jim joined the Society of Grain Elevator Superintendents of North America in 1934, and from that very first connection was deeply interested in its progress and in the development of each local chapter. He was at one time Vice-President of the Society, and for years one of its Directors.

He was an ardent reader of "GRAIN," always looking for his copy each month. From its pages, together with his own past experiences, he moulded his employees and their jobs into a smooth-working organization.

During the last few years Jim's hobby was caring for the grain in the temporary storage shed. His chief desire was to have it shipped out in as good a condition as it was received. His continued and careful inspection of the grain showed its benefits when shipping time came.

James Mackenzie was stricken in church on December 5th, and although in pain he remained throughout the service. Next day he was taken to the hospital where he remained until January 28th, receiving heart treatments. He was progressing quite favorably at home after that until about February 18th, when he began to complain of abdominal troubles. These they were unable to classify correctly. He died very peacefully at his home on February 21st, just going off to sleep.

Mr. Mackenzie is survived by his wife, Margaret, of Three Rivers, a daughter, Katherine of the Ontario Workmen's Compensation Board of Toronto, and a son William of Dominion Rubber Munitions in Three Rivers. Burial services were in Prospect Cemetery in Toronto, in which city he once planned to spend his life of ease.





Production on a Hammermill INCREASED 33% - with a

DAY DUAL-CLONE **DUST COLLECTOR**

TN an actual and typical feed mill experience - production was ▲ increased from 4500 to 6000 lbs. per hour on the same grinder by changing from a long cone dust collector to a DAY DUAL-CLONE. Decreased back pressure did it. Why not get FULL Production from YOUR equipment!

Patented DUAL-CLONE construction utilizes to the utmost the basic principles of cyclonic separation — assuring LOW RESIST-ANCE, HIGH SEPARATING EFFICIENCY, low maintenance cost, no infestation hazards, compact design, easy installation.

DAY Complete DUST CONTROL SYSTEMS

for all types and sizes of grain handling and processing plants. Each job correctly engineered, manufactured and installed. The DAY organization offers you the benefits of 62 years of progressive experience in solving dust control problems.

Dust Control is Too Important not to have the information in our booklet "DAY DUST CONTROL". Write for a copy-no obligation.

The DAY Company 814 Third Avenue N.E., Minneapolis 13, Minn. In Canada: The Day Company of Canada, Ltd.

MARCH . 1944

Electronics In Grain Conditioning

By Grover C. Meyer

INDUSTRIAL ENGINEER, KANSAS CITY (MO.) POWER & LIGHT COMPANY

BEFORE MINNEAPOLIS CHAPTER, SOCIETY OF GRAIN ELEVATOR SUPERINTENDENTS, MARCH 7th, 1944

THE purpose of this paper is to present in a non-mathematical way, an explanation of electronics as applied to one phase of the grain

I have chosen for this explanation, a method of insect control by induction heating. However, before a clear idea may be had of the working of



this method, it will be necessary to explain the principle upon which this method is based, known as the "electron theory."

This explanation will begin the constitution of matter which can simply be defined as "any

tangible substance that has weight and dimensions," and considering further that all matter is composed of molecules—the smallest known physical division of matter.

Molecules in turn are made up of atoms, which are the smallest divisions of an element. For example, a molecule of water consists of two atoms of hydrogen and one atom of oxygen.

Atom Dissected

THE "electron theory" now has to do with the structure of the atom, which is pictured by scientists as a small dense core about which one or more electrons revolve in much the same manner as the planets revolve around the sun, the electron being represented by the planets and the core by the sun. The name given to the core, or the nucleus, of the atom is the "proton," and together with its counterpart, or mate, the "electron," goes to make up the atom.

The atom is said to be electrically neutral, consisting of equal positive and negative charges of electricitythe proton being the positive charge, and the electron, the negative charge. Hence the normal atom is in a neutralized state. Atoms contain protons and electrons in equal numbers and differ only in the number of electrons and protons that they contain.

A hydrogen atom, for example, consists of one electron and one proton: a helium atom contains two protons and two electrons; a carbon atom contains six protons and six electrons.

As mentioned above, every atom contains an equal number of electrons and protons, but it is possible to remove electrons from an atom or to add electrons to it. A body which contains more than the normal electrons, is said to be negatively charged, as the electrons are negative charges of electricity. A body having less than the normal amount of electrons is said to be positively charged. In practice this charging is brought about, for example, by rubbing a glass rod with a piece of silk. The silk will rub off some of the electrons from the glass, leaving the glass positively charged and the silk negatively charged.

Increasing Attraction Limits Separation

LTHOUGH an atom may contain A any number of electrons, from one in the case of hydrogen to 92 in the case of uranium, and although a body contains a larger number of atoms, it is very seldom, if ever, that more than one electron can be removed from each atom. You will see that when electrons are removed from a body, the greater the removal, the more difficult it becomes to remove them because of the increasing attraction by the protons as the electrons are removed.

So far we have only shown how an electron can be removed from a body by friction, which phenomena is com-monly known as, "static." Electrons can be set in a continuous stream by the application of an electrical pressure called "voltage." And a normal stream of electrons constitutes an electric current.

To produce currents in the order of magnitude met with in engineering practice, it requires the flow of billions and billions of electrons per second. The current flowing in the filament of an ordinary 60 watt lamp, for example, is about 10¹⁰ (or 1 followed by nineteen zeros) electrons per second.

It has frequently been stated that electricity has a velocity of 186,000 miles per second. This does not mean that the electrons flow at that speed,

it merely means that if an electrical pressure is appiled at one end of a copper conductor, which is 186,000 miles long, the electrons will begin to come out at the other end one second later. In other words, the pressure wave and not the electrons travel at the rate of 186,000 miles

As explained before, the electrons are already in the atoms of copper of which the conductor is composed, and requires some external force for their movement. Electrons can only be moved through a conductor by the aid of an electrical pressure. At this point, it might be well to give a mechanical analogy of what is meant by "pressure wave."

Pressure Wave Likened to Starting Freight Train

THERE are none of us but what at some time have witnessed the starting of a string of freight cars by a locomotive. And in starting the train of cars, it is necessary that the slack must be taken up at each car coupling, and while the locomotive might be moving forward at the rate of only one mile per hour, the travel of the pull, or take up, will travel much faster than one mile per hour. The pull of the locomotive represents 'pressure wave" and the cars of the train represent the electrons.

Normally, with the transmission of an electric current, we deal with con-

MEET THE AXEES The Gremlins of Accidents



Axees aren't at all angelic, And that includes this smarty, Elec. He plays tricks with loose connections, Frayed lamp cords and your neglections. Watch him; you can't hear him

knocking;

Keep him out—his conduct's shocking! NATIONAL SAFETY COUNCIL

ductors and insulators, and as both of these items constitute matter, the atoms of which they are composed contain electrons and protons. An insulator is a material that offers a very high resistance to the passage of an electric current, or the movement of its electrons. A conductor is a material that offers a comparatively low resistance to the passage of an electric current—or the moving of its electrons.

A perfect insulator would offer an infinite resistance to the passage of an electric current. No perfect insulator is known in engineering practice. The best insulators, such as air, glass, mica, porcelain, rubber, oil and varnish, have an electrical resistance at room temperature of millions of times that of copper or aluminum. However, there is no sharp distinction between insulators and conductors, for if the electric pressure is raised high enough the so-called insulator becomes a conductor.

Summing up what has been said regarding insulators and conductors, they differ only in the pressures required to move the electrons. All materials remain insulators as long as the pressure is insufficient to cause their electrons to leave the atom, even though the orbits in which they revolve about the protons might be distorted.

Weevils and Grains Composed of Electrons and Protons

THIS now leads to the explanation of how the electrons affect insects which infest your grain. Going back for the moment to the constitution of matter and the definition that matter is any tangible substance that has weight and dimensions, you will see that grain and insects both fall into this category. And the atoms of which the insects and the grain are composed, likewise contain electrons and protons, but are on the insulator side as far as the transmission of electrical currents are concerned.

The question now is how to make the infested grain a part of an electric circuit with an electrical pressure applied to this circuit of sufficient value to cause a strain in the electrons within the grain and insects, but not high enough to cause them to leave their respective atoms?

By alternately applying and removing this electrical pressure, the electrons will be set in motion back and forth from their normal to their strained position, and as energy is expended in this motion it causes the grain and insects to heat. This motion is brought about in a practical way by the application of an alternating voltage similar to that used in your home for lighting purposes, which is referred to as 60-cycle alternating current.

It has been found by experiment that the 60-cycle frequency is too low to create sufficient losses within the grain to reach the desired temperature. And so by the use of electronic tubes, high frequency oscillators have been built to produce frequencies of millions of alternations per second.

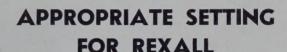
50 Seconds All That Is Needed

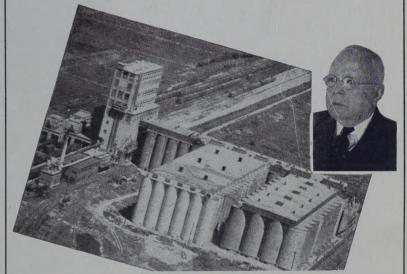
THE Utilities Research Commission of Chicago has carried on experiments along these lines, and quoting from articles which they have published: "It was found that a period of 50 seconds was required to raise the temperature of 6½ cubic inches of grain to 130° F., and at this temperature all four life stages of the insects were destroyed." Quoting further from the publications of the

Utilities Research Commission: "Various temperatures and time intervals were tried, but it appeared that 50 seconds were required to bring the grain up to 130° F. with an ambient temperature of 80° F.

While the application of induction heating to the control of insects in grain is still in the laboratory, the method has been successfully used in other industries such as the bonding of plywood, plastics, etc.

You will appreciate that this paper is not complete in theory, but if it has conveyed to those of the grain industry some understanding of the theory behind the method, it will have served a purpose.





Santa Fe Elevator "A" Kansas City, Kan. Operated by Davis-Noland-Merrill Grain Co. Edward I. Odell, Supt.

In the world's largest conventional type concrete elevator, shown above (10,200,000 bushels), two 424-foot 42" x 7 ply REXALL Belts operate on heavy-duty legs.

Ask Mr. Odell!

IMPERIAL BELTING COMPANY

1750 SO. KILBOURN AVE.

CHICAGO 23, ILL.

Limitations and Latitudes in

Moisture Testing

By Parke W. Burrows

BEFORE CHICAGO CHAPTER, SUPERINTENDENTS' SOCIETY

A T THE recent meeting of the Chicago Chapter of the Grain Elevator Superintendents, Parke W. Burrows, General Manager of the Seedboro Equipment Company, Chicago, talked on "Moisture Testers."

At the start of his talk Mr. Burrows passed around a sample of corn and asked all of the men to guess its moisture content. He recalled that many years ago, before grading regulations went into effect, it was the commonplace thing to test grain either by the "bite test" or by pressing a fingernail into it.

By having the men make this test, he showed how easy it was to make a mistake. The correct moisture of the samples was 21.03 and the guesses ranged from 17% up to 25%. Harry Hanson of the Glidden Company walked off with the first prize of a Sudbury Soil Test Kit by guessing 21.6%. Mr. D'Onofrio won a portable camp stove as second prize, and Bill Gassler won the third prize. Mr. Burrows said in part:

Great Misunderstanding on Official Moisture Methods

THERE is a great misunderstanding regarding what consists of the official method for making moisture tests. The official grain standards in the United States specify that the air oven method is used on all grains except corn and soybeans, for which the water oven method is used. All other types of testers in common use by the grain trade, such as the Brown-Duvel, the Tag-Heppenstall, and the Steinlite are calibrated methods.

The USDA realizes that it is impractical for the grain trade to use the air or water oven methods, which take anywhere from one hour up to 96 hours and states: "In order that rapid determinations of moisture in grain may be made to meet the routine requirements of practical inspection work, grain inspectors may use electric moisture meters or other apparatus and methods which give moisture test results equivalent to the results obtained with the air oven method or the water oven method, as the case may be."

The Brown-Duvel moisture tester, which works on a distillation basis, was known as early as 1902, but did

not come into general use until after the Grain Standards Act went in effect.

Inaccuracies Up to 0.5%

IN 1926 an extensive study was made by Messrs. Coleman and Boerner, and resulted in the publishing of a booklet entitled: "The Brown-Duvel Moisture Tester and How to Operate It." This bulletin pointed out many things pertaining to the operation of the Brown-Duvel that were not known. It indicated that unless this type of tester is carefully handled, inaccurate results will be obtained.

The thermometer must be correctly inserted into the oil, the shut-off point must be followed exactly, priming tests must be run if the tester has not been in use for 24 hours, the sample must be weighed out carefully, stoppers must not become soggy, graduates must be thoroughly dried, tester should be standardized for length of time in running the test, voltage of the heating plate must be correct, etc.

If the above factors are not watched carefully, variations from

MEET THE AXEES
The Gremlins of Accidents



Here's a guy whose deeds outrageous Are insidious and contagious; Keep your watchfulness and quickness And don't catch his sleeping sickness. Though his name is really Blinky, If you meet him, call him Stinky!

NATIONAL SAFETY COUNCIL

0.2% to 0.5% will result. The Brown-Duvel tester, although still being used by a considerable number of firms, is now being replaced by the faster electric type of testers.

Electrical Methods Fast, Easy

GENERALLY speaking, there are two types of electrical moisture testing methods in use by the grain trade. One is the conductivity method and the other is the tester which operates on a radio frequency impedance principle.

The Tag-Heppenstall moisture meter, which works on the conductivity method, started being used in 1930. The USDA was anxious to get a faster tester to replace the Brown-Duvel in the various inspection offices and worked with the manufacturer of the Tag meter in making calibrations. At that time there was no other type of electrical tester manufactured—and it is interesting to note that the "Tag" was originally designed for testing tobacco and other products.

The basic theory of the conductivity method is that the electrical resistance of the material decreases as the moisture content increases. For example, the resistance of 13% wheat is 7 times that of 14% or 50 times that of 15% wheat. The Tag meter is fast, easy to operate and is easily standardized. It must be used with great caution on grain of mixed moisture content or kiln dried grain.

The Steinlite tester, another popular electric tester, operates on the theory that the radio frequency impedance varies directly with the moisture content of the grain. This type of moisture content was known as far back as 1930, but the Steinlite did not come into use until about 1938.

This instrument is calibrated against the official oven method, same as the Brown-Duvel and Tag meter. With the Steinlite it is possible to make moisture tests on both large and small grains without changing rolls, etc. It is also fast and guaranteed to be accurate when compared to the official oven method. It has no moving parts to replace, and the manufacturer has a good service program.

Cold Grain Tests Only Problem

The distillation method (Brown-Duvel) is rapidly passing out of existence, because it is too slow for the grain trade. The electrical testers do give accurate results compared to

the official oven methods but, like all instruments, should be used with care. They will not give an accurate test on frozen grain, and cold grains present a definite problem. They also tend to become less accurate on high moisture grain.

It should be noted that it is impossible to get various types of oven methods to agree 100% of the time, and there appears to be a definite need for a very accurate basic method or standard "yardstick" against which the electrical methods can be calibrated.

Electrical Shortages Reported

Members of WPB's Electrical Appliance Repair Shops Industry Committee reported a definite shortage of repair parts at their meeting on Feb. 28, and indicated that in many cases consumer hardships result from their inability to obtain parts quickly enough.

WPB rulings which require that old metal parts be turned in for repairs or salvage before new parts can be obtained sometimes mean that motors, etc., cannot be used at all during the time it takes for delivery of the new part.

Terminal Coming Down

The Gulf, Mobile & Ohio terminal grain elevator at Mobile has been sold and is now being torn down and Mr. C. L. Warren, former Super, has been assigned to other duties with the railroad. We are out of the grain business for the present.—W. E. Kennedy, Docks Manager, G. M & O. R.R., Mobile, Ala.

Double Import Carloadings

Instead of 100 cars daily to load Canadian wheat for feed, the number was doubled March 13th. Movement will be to Minnesota and Montana points.

SUPER AVAILABLE for grain and/or feed plant. Have 8 yrs.' experience in manufacture of feeds and handling of grain. Past 5 yrs. in charge of 700,000 bu. elevator handling soybeans, corn, oats, flax and barley. Married, 36 yrs. old, draft exempt. Willing to let my ability establish my compensation. Write Russell B. Millburn, 1011 9th St. S.W., Cedar Rapids, la.

WEST COAST SUPER wants new connection. Well schooled in Chicago for 11 yrs. at Bartlett-Frazier's "Calumet" Elevators. In Pacific Northwest export houses for 22 years. Experience covers drying, bleaching, cleaning, blending for protein, mixing to Federal grades, test weight, etc. Big hobby is washing wheat. Excellent references from exporters, milling companies, leading grain houses—both previous employers and customers. Write Robert G. Hunt, 707 S. Sheridan, Tacoma 6, Wash.

capable Super with ample executive ability and initiative would like to make a permanent connection with a progressive firm as their terminal elevator superintendent. University education in general business; 12 years experience in grain inspection, weighing, etc.; 2 years as elevator supt. for large milling concern; 39 yrs. old, married, 3 children; good habits, splendid references. Salary %"GRAIN", 1078 Board of Trade, Chicago 4, Ill.



ARMIES fight on food. And the people at home need plenty of it for the extra war work they do.

It is a tribute to America's farmers that this nation is the best fed in all the world.

America's railroads, too, have

their important part in feeding our nation, our armed forces and our Allies.



It is their job to move the food safely and quickly to camps, and to shipside for export. It is their job to keep the busy people at home supplied with what the farmer produces.

To do it, plus moving

vastly increased loads of vital war materials, the railroads are exacting every bit of serv-

ice from the equipment they have.

They are working hard to make up for the

thousands of skilled railroad men who are now serving Uncle Sam.

The railroads accept these



tasks eagerly, just as all enterprising American industry is doing —devoting the experience and

the knowledge of transportation gained in more than a hundred years of service toward hastening victory and peace.



RAILROADS

ALL UNITED FOR VICTORY

Getting Over The Hump

THE months ahead will be an exportation. The railroads are confronted with growing manpower shortages, a tightening car-supply situation, operating difficulties, and the other stresses and strains produced by war conditions. The freight load, moreover, is still increasing, and it is possible that an added volume of highway traffic will have to be diverted to the rails.

These facts make it imperative that operators and users of the nations railroad facilities redouble their efforts to boost operating efficiency and car utilization still further.

In this connection, it should be frankly recognized that attainment of increased efficiency may require payment of overtime wages or other additional costs, the diversion of certain labor forces from their normal tasks to the loading or unloading of cars, and other departures from customary practice. But it should be borne in mind that such sacrifices or expenditures will be relatively insignificant compared with the losses that would be incurred from incomplete transportation service.

The job before us can be accomplished through the continuing and coordinated efforts of everyone concerned with rail transportation. Many things can still be done, or done better, to improve freight-car performance. And some practices, normal in peacetime but inconsistent with transportation efficiency, must be discarded for the duration. An improvement of 10% in overall freight-car performance is the goal.

Some Helpful Do's and Don'ts

- 1. Don't order more cars than are actually needed and can be loaded promptly. Don't order cars for the same shipment from more than one railroad.
- 2. Load and bill cars on day placed or within 24 hours after placement.
- Load cars to full load limit or cubic capacity. Arrange loads for safest transportation, applying necessary bracing and dunnage.
- 4. Coöperate with other shippers, if necessary, to insure maximum loading of cars.

- 5. Avoid unnecessary weighing and reweighing.
- 6. Load and unload six full days weekly, including holidays—seven days where necessary to avoid delay.
- 7. Furnish shipping instructions promptly.
- 8. Regulate shipments in accordance with consignees' daily unloading capacity, so as to avoid bunching at destination.
- 9. Avoid scheduling shipments by overloaded routes.
- 10. Avoid circuitous routing which wastes cardays. Select practical routes. Resist solicitation to use wasteful routes.
- 11. Make advance arrangements for labor to unload cars, so that cars can be released promptly.
- 12. Unload all cars within 24 hours-sooner if practicable.
- 13. Notify the railroad as soon as cars are unloaded.
- 14. Remove all dunnage and debris promptly, leaving car ready for next load. Close doors to keep interior dry and clean.
- 15. Don't ask for special switching or other services, unless such services will result in release of a larger number of cars.
- 16. Buy materials as close to point of consumption as possible.

Wheat Grind up

Wheat ground by 981 mills in January 1944 amounted to 52,063,318 bu. as compared with 49,462,543 bu. ground by 994 mills in December 1943, and 49,958,636 bu. ground by 1,061 mills in January, 1943. Of these 981 mills reporting, 28 ground 3,352,118 bu. wheat into granular flour, which is not included. Of the 981 mills, 184 ground 83.8% of the total.

65 Million By July 1st

Canada is prepared to send 65,000,000 bu. wheat and coarse grain to the U. S. via the Great Lakes between the opening of navigation and July 1, a Canadian Wheat Board official said earlier this month. Twelve million bushels of grain have been moved to the U. S. up to March 1st in a program calling for rail delivery of 40,000,000 bu. before July 31st, he

CCC Proposes Big Purchase

CCC expects to buy 175,000,000 bu. Canadian wheat, provided transportation facilities can be arranged, reports Trade Minister MacKinnon. It is proposed to move 40,000,000 by rail, 30,000,000 by ship from Vancouver, and 105,000,000 by lake during the 1944 season.

More Duty-Free Time

An additional 90-day extension for the importation of wheat for feed and other feeds for livestock, duty-free, was advocated by a New York congressman earlier this month. Inasmuch as CCC imported about the only wheat coming in under the original duty-free resolution (which expires this month), which agency can continue such activities without paying tariffs or heeding quota limitations, doubt exists over Congressional approval.

Early Navigation Opening

Provided there is no 11th hour revival of wintry blasts, one of the earliest openings on record of Great Lakes navigation is predicted due to mild weather. Engineers aboard some bottoms will have steam up for an early April sailing. Chicago winter storage interests were ordered to unload by mid-March.

Huge Lake Tonnage Forecast

Approximately 100,000,000 bu. more than last year is predicted for the Great Lakes grain movement this year, according to a survey just completed by Buffalo and lower lakes' interests. This would bring the total to 285,000,000 bu.

Anticipates Heavy Grain Movement

We anticipate a very busy period from the opening of navigation, but we all have hopes that we shall be able to stir up considerable interest in the Superintendents Society's convention and round up a fair sized delegation notwithstanding.—Percy C. Poulton, N. M. Paterson & Co., Ltd., Fort William.

SAVE TIME with a STEINLITE



626 Brooks Building

Moisture tests on grain can now be made in one minute. No longer is it necessary to heat the grain and wait and watch 20 or 30 minutes while the temperature rises to the correct shutoff point, as with other moisture testers. The Steinlite Electronic Moisture Tester eliminates all of this time-consuming effort because it is FAST. Your time is valuable; Save it with a Steinlite.

The Steinlite is ACCURATE—checked against official government oven methods.

"HEADQUARTERS" for all Grain and Seed Testing Equipment

Chicago 6, Illinois

EASY TO USE—almost as easy as tuning a adio.

INEXPENSIVE TO OPERATE — consumes to more electricity than a 40-watt bulb.

PORTABLE (light weight), neat and compact.
BOOK YOUR STEINLITE ORDER NOW!

We can make IMMEDIATE SHIPMENT from stock now. But if you wish to wait, permit us to make shipment within 60-day period, just ahead of your busy season. No down payment required...10 day FREE trial.

Send for Seedburo Catalog No. 143



Carloadings Settling Down

Carloadings of grain and grain products are leveling off, but not in proportion to recently broadcast predictions based upon estimates of all regional Shippers Advisory Boards. As a matter of fact, cumulative loadings are 5.8% over 1943 and 29.9% over 1942, as officially shown for the weeks ending:

Cars of export grain unloaded during February at tidewater totaled 3,373, compared with 2,796 in Feb. '43, an increase of 21%.

Corn Grind Off

During February, 11 refiners ground 10,623,810 bu. of corn for domestic consumption. This compares with 11,364,015 in January and 10,694,440 in December.

Restrict Flax Purchases

To assure all flaxseed crushers a portion of the available 1943 domestic crop supply, WFA restricts purchases in excess of seasonal needs, effective March 1. There also are restrictions against purchase or acceptance of delivery by others, against specified stocks on hand, and against shipping out of specified areas.

Flour Production Up 7.9%

There was an increase of 7.9% in the production of wheat flour by reporting mills in 1943 as compared with 1942, states the USDC. Production was reported as 229,775,712 sacks for 1943 and 212,917,944 sacks for 1942. The mills whose data are included in this summary produced 95% of the total wheat flour production.

Of the 1,016 mills (average number), 584 with daily 24-hour capacity of 400 sacks and under produced 3.3% of the total; 71 mills with 401-600 sacks capacity produced 1.5%; 125 mills with 601-1200 sacks capacity produced 7.2%; 83 mills with 1201-2,000 sacks capacity produces 11.6%, and 153 mills of over 2,000 sacks capacity produced 76.4%.

"Trimmer" Information Wanted

In the January,1944, edition of your valuable paper, I notice in an article entitled: "Safest Methods of Working in Grain Bins," you state "Electric Trimmers used for bulk cargo . . " etc.

Can you give us a little more information about these; who makes them and to whom we should write to get further information.—J. Whittle, Sec'y & General Manager, Midland Pacific Terminal Limited, Vancouver, B. C.

Electric Trimmers Discontinued

Electric trimmers are not used in Halifax, and neither to my knowledge anywhere else in the St. Lawrence ports comprising Montreal, Sorel, Three Rivers and Quebec. Trimming by manual labor is the practice.

Prior to the war there was introduced a mechanical trimmer, the full operation of which I am not conversant with, but which, I believe, operated on a blower system. This was used for a short period on certain types of vessels loading bulk grain, notably ocean liners to which it was thought its use was adaptable, at the Port of Montreal.

Its use however was discontinued, but I am not able to state why this came about.—E. C. Howes, Montreal.

No Trimmers on Gulf

Am sorry that I am not in a position to furnish you with any information on electric grain trimmers. They are something new in our experience. As a matter of fact, this is the first time we have heard mention made of such a device.

We have experimented at this elevator with pneumatic air trimmers of several different kinds, but without success. In the event "GRAIN" is successful in obtaining information on a practical electric trimmer I will be just as interested in getting the information as is the gentleman who first inquired.

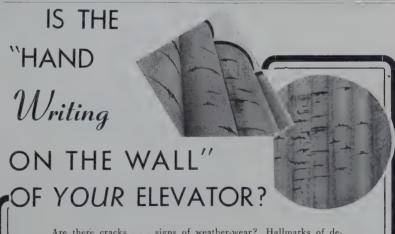
From the verbiage of the article in the January issue, I gather that the plant wherein this device is in operation handles flaxseed to a large extent, and I would suggest the possibility that either the Archer-Daniels-Midland Co. or the Spencer Kellogg interests may be the operator of the elevator.—Charles J. Winters, Public Grain Elevator, Port of New Orleans, La.

Doubts Practicability of Electric Grain Trimmer

I very much doubt if as yet very much can be marked up on the electric grain trimmer. I think it was in 1928 that I tried out such a device when loading a couple of boats in Seattle. The experiment did not prove up to the expectations and hopes of any who were interested in its success.

This was a motor driven, portable, high speed belt conveyor arrangement and did a very good piece of work on what was termed a "small feed"—but the good work was ended when the volume was increased.

The inventor, I understand, tried again some time later, but with no better success and I have heard nothing further of it. Truly some device is needed however, as all grain still carries dust and we don't have many dust eating Irish trimmers any more. And accompanying any mechanical rig would be the hazard of spark and explosion, also pros and cons.—Robert G. Hunt, Tacoma, Wash.



Are there cracks . . . signs of weather-wear? Hallmarks of deterioration and forerunners of still greater destruction?

If there is evidence of needed repairs, we cordially invite you to consult our trained engineers . . . to investigate the time-tested scientific MANY principles of weather-proofing and rehabilitating all types of concrete and brick masonry.

An unbeatable record of plant restoration bears convincing witness of the sterling worth of our work . . .Yes, of our *ability* and *willingness* to render the most constructive service attainable.

B. J. MANY CO., Inc.

30 No. La Salle St. 213 State St., Detroit

Chicago, III. Baltimore (Md.) Life Building

MARCH • 1944



To My Fellow Workers:

Seven weeks ago my only son was killed in the war.

Most of you know this but you can't possibly know how Hardy's mother and I feel.

That is, none of you except Walt Gardner who just lost his boy too.

Since Hardy's death I've been doing a lot of thinking. What I'm trying to figure out is why so many of us are taking things for granted and not doing all we can to help win the war.

Maybe it's because we keep hearing and talking about the war lasting for years. That sort of thinking might keep anyone from hurrying.

It could be that this long-pull stuff was why we lost almost half a million minutes of production time last month through absences and tardiness.

Anyway I'm fed up with all this talk about a 5 or 10 year war. There's no sense to it. We can win this war quick. We've got to.

If we don't your boys will be killed like mine was.

Please, please don't wait for the casualty lists to come rolling on. Throw yourselves into high — NOW.

Get going as though both the Huns and the Japs had to be licked in 1944. Maybe they will be if we really try.

I suggest a new slogan for Carrier. Here it is -

"LET'S GET IT OVER QUICK!"

I hope you won't think I'm preaching. I'm not. I'm praying.

Yours truly, Arthur Hocking* Clock No. 2062

"An employee of Carrier Corp., Syracuse, N. Y.

To You-Dad Hocking-We sincerely hope and pray that every person who reads your plea will throw it in high NOW to get this damaed war over QUICK-and we hope millions will read it.

To editors of other publications—THE LOUIS ALLIS CO., Milwaukee, will send an electrotype of this page to you gratis—so you can reprint this Dad's plea in your publication.

Let's Get It Over Quick

Thanks to Cliff MacIver, A-D-M Co., SOGES Director and Minneapolis Chapter v.p., for the suggestion that "GRAIN" run the effective Louis Allis Co. plate published on the opposite page. You'll all agree it is one of the best presentations of this nature.

And while we're thanking our readers for thinking of us, our gratitude to two unknown Kansas City Supers, another unknown Kansas Super, and two others in Minneapolis for their appreciated boost for "GRAIN" to a new advertiser.

Chicago Associates' Night

To say that the annual Associates' Night program presented before the Chicago Chapter of the Superintendents' Society was a big success would be putting it mildly. Hospitality was the order of the day and reminiscences kept many of the diners in stitches.

Held last month in the spacious quarters of the Hamilton Rubber Co., so many guests, new members and previous absentees were present that it was deemed advisable to conduct one of the Society's famous introduction lines. Hobe Todd's elegant "baked beans" were again the toast of the party.

Marshall George was chairman of this important event, aided by Parke Burrows, Russell B. Maas, H. G. Onstad and Ingram Richardson. Sponsors included:

Parke Burrows, Seedburo Equipment Co.; Frank Butt, John S. Metcalf Co.; John I. Dennehy and Marshall George, B. I. Weller Co.; Phil Grotevant, S. Howes Co.; Charles Harbin, Underwriters' Grain Ass'n; Art Keenan, U. S. Rubber Co.; Louis Koch, American Miller; Russell B. Maas and P. F. McAllister, Screw Conveyor Corp.; A. D. MacPherson, Huntley Mfg. Co.; Fred Melberg, W. D. Allen Mfg. Co.; Paul Neaher, B. F. Chump. Co.; H. C. Corp. B. F. Gump Co.; H. G. Onstad, engineer and contractor; Earl Ott and Harry Press, Lakeside Metal Service; Ingram Richardson Scale Co., and Hobart Todd, Hamilton Rubber

This group, plus others locally and form other locations will doubtless conduct a similar successful evening at the time of the SOGES annual convention at the Medinah Club, June 15-16-17th.

GIRLS PRETTY, TOO

SOMETHING new has been added to the lobby of a hotel in Charlotte, N. C. Resplendently patriotic in red, white and blue, a huge nickeledean stands majestic beside a potted palm. You put a quarter in and you get a tune plus a War Savings Stamp. The tune comes from the juke box and the Stamps come from the two pretty wirls symplied bu the one of two pretty girls supplied by the Office of Civilian Defense. Popular selections are "Any Bonds Today," "God Bless A merica," "Anchors Aweigh," "Semper Fidelis," and other patriotic

Hiram Walker to Build Terminal

A \$1,000,000 public terminal elevatar is to be erected at once by Hiram Walker & Sons Grain Corp., Ltd., at Windsor, Ont. The 1,325,000 bu. plant is expected to be ready to receive grain this fall.

To Build New Plant

A \$900,000 soybean processing plant is to be built by Spencer Kellogg & Sons, Inc., on the site partically occupied by its 1,500,000 bu. elevator, according to announcement from Des Moines.

Can Deride Unions

So long as you take no other action that might be construed as interfering with employe rights, you can, as an employer, utter your opinions about labor unions to your employes. When such statements are part of a series of such acts, they violate the Wagner Act, NLRB holds.

Can Abrogate Clause

If a union violates its "no strike" pledge, an employer can perhaps abrogate a union-shop clause in his labor contract in favor of a maintenance-of-membership clause, says one WLB rule.

Can Avoid Checkoff

If you do not prohibit the solicitation of union dues in your plant, you can probably avoid an order to check off the dues of union members from your payrolls. WLB holds barring such solicitation is ground for grant-

Can Rehire Veterans

Even if re-employment appears to contravene a NLRB order to hire someone else, you can re-employ workers returning from military service-the right of returning veterans to their old jobs takes precedence over a NLRB order.

But Can Union Lie?

Even on the ground that shortly after NLRB certification of a union you received an unsolicited petition from a majority of your employees stating the union did not represent them, you cannot refuse to bargain with the union. Such certifications must operate for a reasonable time to insure stability, a federal court holds.

Cannot Deny Seniority Right

WLB rules a worker retains the seniority rights he accumulated before resigning, which cannot be denied to him even though he quits his job and later returns to work because he cannot get a certificate of availability.

Board's Orders May Conflict

Even on the ground that NWLB orders conflict with state labor peace acts, you cannot expect to challenge them successfully. In one case WLB ruled that its orders are not subject to terms of such state laws.

Corn Refinery Fire

Fire recently damaged the feed mill unit of the Hubinger Co.'s large plant in Keokuk, Ia. Spontaneous combustion was given as the cause.



MANUFACTURERS

legging.

Industrial Accidents Appalling

A million fewer industrial injuries in 1944 is the goal set by Secretary of Labor Frances Perkins. Its achievement, she pointed out, would amount to about 40% reduction from the 1943 total of nearly 2,500,000 injuries.

"This reduction would result in the saving of some 22,000,000 days of work," Miss Perkins said. "In manufacturing alone it would increase the number of workers on the job each day by 24,000. Many non-manufacturing establishments are, of course, directly engaged in war work, and a curtailment of injuries in them would be of direct benefit to the war effort.

Fewer injuries to persons employed in operations not directly connected with the war would do much to maintain an adequate supply of labor for war production.

"While the goal of an over-all 40% reduction may seem unduly high to some, there is no doubt that it can be accomplished in a large number of individual establishments. The work of the Department's National Committee has produced many instances of accident reduction in excess of 40%.

"The size of the accident-prevention task will make it necessary for the Department to confine its own program to manufacturing establishments engaged directly on war contracts. Nevertheless, the Department has a definite interest in the safety of wage-earners in every type of work. The establishment of an accident reduction goal covering every type of employment will do much to stimulate the active interest of employers and workers, and assist other groups, both government and private, now working directly in those fields on the matter of safety."

(Ed: The Superintendents Society conducts an annual Safety Contest that has proven highly gratifying to participants and undoubtedly saved many accidents and injuries. Fifty-four grain handling and processing plants participated therein last year, and many of them made an admirable safety record. The cost to members is but \$5 per plant, which fee is returned in the form of bulletins, posters, booklets, and trophies for the

clear-record plants.)

WHAT'S YOUR ANSWER?

Here's my problem of the month, writes the chairman of the Grain, Feed & Milling Section of the National Safety Council:

Two of our employees, in different plants, have stepped into loops in power shovel cables just as the dogs engaged. In one case, another employee pushed the "stop" button and a badly fractured leg (probably some permanent disability) was the result. In the other case, the cable gnawed the foot off at the ankle.

In the first case, the loop formed in front of the sheave (on a platform about 30 inches wide) as the man was feeding out cable to help the other shoveler. He was evidently standing behind the sheave and stepped to the side to enter the car when he stepped into the loop.

At the other plant, both men were in the car, and as one pulled his shovel back, the other helped him by lifting the cable to his shoulder and pulling (an unsafe act) and as he dropped the cable, it formed a loop and he stepped into it. What are your ideas on:

a—Safe practice that should be used?

b—Stopping devices for emergencies?

c-Type of cable to use?

d-Relocation of sheaves?

e-Etc.?

Please send in any ideas you or your Safety Committee may have on this to "GRAIN".

ACCIDENTS REPORTED

THIS MONTH

One man jumped down from a loading dock, suffering a sprained ankle. There was a permanent ladder nearby.

An employe left a bar leaning against a door. When the door was opened the bar fell on his foot.

THIS
POWERFUL,
PENETRATING
FUMIGANT
Spells
DOOM



. . for WEEVIL, MOTH and other GRANARY INSECTS, including MITES

• Kill includes egglife and larvae. Head off trouble by treating all suspicious incoming grain and, as an economical precaution, treat grain when turning. Costs only \$1.50—1.70 per 1000 bushels, in closed concrete bins. LARVACIDE comes in cylinders 25-180 lbs. and 1 lb. Dispenser Bottles, each in sealed can, 12 to wooden case. Stocked in major cities.

• Treat Grain in Shallow Bins with Land House House

Apply by hosing or sprinkling onto grain surface. Treating corn in good shapes costs only \$2.60—2.75 per 1000 bushels: Wheat just a little more. LARVACIDE 15-MIX comes only in 50 gallon drums. Stocked in major cities.

Both LARVACIDE and LARVACIDE 15-MIX unmistakably warn of their presence, reducing the accident risk. No fire or explosion hazard with either. Write for literature on Effective Pest Control.

INNIS, SPEIDEN & COMPANY, Established 1816

117 Liberty Street, NEW YORK 6, N. Y.

BOSTON . CHICAGO . CINCINNATI . CLEVELAND . OMAHA . PHILADELPHIA

Using a rickety stepladder—ladder collapsed.

Grain doors had been thrown out of car and were laying along track. Man stepped on nail.

Replacing glass in window. Brushed window sill. Got glass in hand.

One worker stood on dock to help another worker step up. A fractured ankle resulted after his being jerked to ground.

SAFETY STUDY COURSE

What now appears to be a 100 page illustrated Safety Study Course has been prepared in initial form and submitted to an augmented Safety Committee for comment and expansion, according to Clarence W. Turning, Minneapolis, Safety Contest Director. "From the comments received from many sources," he states, "we are highly encouraged with this tremendous undertaking which is designed to be a guide for those conducting weekly safety meetings in their respective plants."

The text is designed to work with the Society's Safety Manual authored by Mr. Turning and issued to the industry last year. When all committee members have been heard from the final draft will be compiled and work commenced in laying out and publishing this helpful and authoritative text, according to R. B. Pow, Reliance Grain Co., Ltd., Fort William, SOGES President.

35 S. Market St.

FOREMENSHIP

A foreman should be able to do any job his men do, only better.

A good foreman must be capable of treading that straight line between employer and employee.

He must sometimes be a angel, a devil, a genius, a referee, and be able to represent both sides fairly and beyond reproach.

Alibis, favoritism, personal grudges or feelings have no place in a good foreman's mind.

Whether in the Army, Navy or Industry, discipline is for the good of all.

Yet, you occasionally see an employee disobeying rules and regulations to the detriment of all.

H. W. Puetz, Safety Engineer.

Fatal Accident to Oldster

With almost 33 years of service, a loading foreman considered one of the safest in his company, had brought two new employes out to a coal car to instruct the men how to knock the coal loose so it would flow through the hopper of the car and into the pit, a feed plant reports. Coated with snow and ice, the coal did not show that it was arched, but as he walked across it the fuel avalanched down after he broke through and buried him. Shock or suffocation had done its work.

Dan Whalen Dies

Dan Whalen, Super at Commander-Larabee's "Commander" Elevator in St. Louis Park, Minn., died Feb. 28th of a heart attack. I understand he was going to retire in April. His son will succeed him.—James Auld, Minneapolis Chapter Secy.

Samuel Phillips Dead

Word has just been received from Frank A. Peterson, New Jersey Flour Mills Co., Clifton, N. J., that Samuel Phillips, Manager for Norris Grain Co., Baltimore, died recently at the age of 87. He had been ill for some time.

Igleheart Super Dies

David M. Nation, 62, Supervisor of grain elevators for Igleheart Bros., Inc., Evansville, Ind., died recently following two weeks illness in a local hospital.

E. A. Cuff Died Year Ago

Mr. W. V. Barker has just become a member of our SOGES Chapter. E. A. Cuff died about a year ago, and really don't know why no one told you. However, Mr. Barker has taken over the Cuff agencies in Port Arthur and is willing and anxious to belong to our society.—Fred A. Sibald, National Grain Co., Ltd., Sec'y., Ft. William-Pt. Arthur Chapter SOGES.



Chicago 6, III.



SUPERINTENDENTS ANNOUNCE CONVENTION DATES

Chicago has been selected as the host-city for the fifteenth annual convention of the Society of Grain Elevator Superintendents, according to an announcement by R. B. Pow, Resident Manager, Reliance Grain Co., Ltd., Fort William, president of the Association.

The dates are to be June 15-16-17th and headquarters will be the Medinah Club, a non-sectarian public hotel offering quiet and commodious accommodations to the notoriously hard-working convention delegates. Built during the "lush" twenties, the quarters are extravagant in comfort and facilities offered. On a site away from "loop" noises, delegates will find not only reasonable room rates, but the best meals in town, undisturbed meeting rooms and all the facilities of a fine club for "after-session" relaxation-should any find time for a swim, bowling, squash, etc.

So many new wartime problems have confronted plant heads, both managing and operating, that 250 rooms have been reserved to assure accommodations for everyone. Present indications point towards having to boost that figure, President Pow reports.

Wants It Continued

During the past few years your publication "GRAIN" has been placed on our desk regularly and we have enjoyed reading it. We would be glad to continue to receive it. - S. G. Weber, Superintendent, American Diamalt Division, Fleischmann Malting Co., Standard Brands, Inc., Cincinnati, O.

POULTON GETTING

EXCHANGE FOR CANADIAN CONVENTIONEERS

Percy Poulton, N. M. Paterson & Co., Ltd., Fort William, has taken over the job of looking after securing American funds required for those Canadian SOGES members and visiting guests who will wish to be present at the Chicago convention,

June 15-16-17th next, at the request

of President R. B. Pow.

No passport visa is any longer necessary for those Canadians entering the U.S. for a period not exceeding 29 days, Mr. Poulton states. All may now enter with only a birth cer-

It will, however, be necessary for all prospective delegates to comply with the regulations as set up by the Canadian Foreign Exchange Control Board. Form "H" will be required to obtain the funds necessary to make the trip, and those of our Canadian members residing elsewhere than the districts of Port Arthur and Fort William might well be advised to apply direct to Canadian Foreign Exchange Control Board, making application for funds.

This should be done early even if the prospective delegate cannot be sure at this time that he will be able to attend when the time comes. The funds should be arranged and then if the opportunity arrives at the last moment to take in the convention it will be made easier for the parties

concerned.

It might also be a good idea to begin to canvass the possibilities of transportation. Perhaps it might be arranged that the delegates from Fort William-Port Arthur and Winnipeg could move to Chicago along with our Duluth and/or Minneapolis delegations.

MANAGERS ENTERTAIN

Instead of holding our regular monthly meeting on the third Tuesday evening, the Kansas City Managers gave the Supers a banquet in the Windsor Room of the Hotel Phillips. It was a swell affair, with plenty of good food, et al.

All long-winded, dry speeches were eliminated. No business was transacted. This was entirely a sociable, conversational meeting. During the dinner a very attractive young lady sang and played an accordian. A new Scale & Weight Committee that will supervise the weights in this market during the year was announced.

upon which I will serve.

Following that our personnel director at the mill, Mr. Taylor, was introduced as an officer of a new government agency. It was all in fun, however it did chill a number of the Managers and I believe most of the Superintendents.

Mr. Erickson, well known crop reporter, also attended this party, as, of course, did a number of the Kansas and Missouri Inspection Department people, to make a total of 85 who really had one grand evening .-- P. A. Kier, Standard Milling Co., Chapter Secretary.

New Unit by Fall

A four-expeller soybean processing plant ready to convert 4,000 bu. beans daily will be completed by Ralston-Purina Co. at Kansas City by Oct. 1st. Room for expansion of this operation is being allowed, states Bill Kamp, Super of the firm's large feed plant.

COUNTS!

CALUMET

1,944,932

Super Capacity Elevator

The only elevator bucket with the logarithmic curve.

Results prove that the patented curve of the bottom of the Calumet Cup causes it to pick up more material in the elevator boot and discharge more efficiently at the head than any other elevator bucket. Additional features of the Calumet:

- One piece, sturdy, ribbon-welded construction, making the cup entirely smooth, both inside and out. Less friction, longer life.
- Bolt holes near center of the back of bucket— better balance on the belt.
- $\mathbf{3}_{\bullet}$ High ends to bucket—prevent grain spilling down the leg.
- 4. Buckets can be placed closer together on belt.
- **5.** Faster belt speeds can be used.
- 0. 10% to 100% greater elevator capacity.

Send for our Form 35... find out just how much greater guaranteed capacity you can get out of your elevator legs without expensive changes.

B. I. WELLER CO.

327 S. La Salle Street

Chicago 4, Illinois

MEET THE AXEES The Gremlins of Accidents



Who's the guy who makes you wish he Hadn't made the rug go swishy? Who puts buckets on the stairway, Makes you walk the I-don't-care way? Well, just open wide your eye; You'll find him hiding there—it's Sly!

N/TIONAL SAFETY COUNCIL



A seldom seen sky-view of your convention city's "loop" where North and South river branches part company. Merchandise Mart at lower left; Civic Opera House is right center (2nd tallest): Chicago Board of Trade is upper center right, Ceres atop (tallest): Field Museum, upper center, and Shedd Aquarium adjacent to left. Lake shore line due North and South at point shown.

ESCHER ADDRESSES SUPERS

Ed Escher, widely known designing engineer of the Screw Conveyor Corp., Hammond, addressed the Chicago Chapter of the Superintendent's Society this month on "Taking Up Where Archimedes Left Off." His educational remarks on recent engineering developments of importance to grain handlers and processors touched upon the "Hammond Screwlift" introduced last year, as well as some revolutionary post-war products that can be expected.

You are to be commended for your success in the effort of publishing the December issue of GRAIN. Hope you can keep up the good work.—Clifford A. MacIver, A-D-M Co., Minneapolis.

Seedburo Agents Hold Meeting

Twenty-five field service men on the Seedboro-Steinlite staff attended a meeting at the Midland Hotel, Chicago, February 10 and 11, sponsored by L. M. Smith, President, and P. W. Burrows, General Manager of Seedboro Equipment Company.

Most of the time was devoted to technical discussions related to operating and servicing the Steinlite Electronic Moisture Tester for grain, dehydrated foods and related products.

Some attention was devoted to the new Mangelsdorf Seed Germinator and other grain and seed laboratory apparatus sponsored by Seedburo Equipment Company. The essential theme of the meeting was: "How to be of Greater Service to Steinlite Users".

Erickson to Mackenzie Post

Conrad Erickson succeeds the late James Mackenzie to the post of Superintendent of the Three Rivers (Que.) Grain & Elevator Co., Ltd. plant. Mr. Erickson has been in the employ of the Company since the elevator was erected in 1936. One of the first things he did was to join the Superintendents' Society.

Lou Ambler Confined

Lou Ambler, former SOGES Chicago Chapter head and Elevator Superintendent for The Glidden Co., of late has been confined to bed, first in the hospital, now at home, with a varicose vein condition considered quite serious. The difficulty first came upon him while he was setting up a Richardson Scale Co.'s Duplex Bagging Scale in the Decatur (Ill.) Milling Co.'s palnt. Lou hopes to be up and around again before too long.

Wife: "Goodness, George, this is not our baby! This is the wrong carriage." George: "Shut up! This one has rubber tires."

NEW PRIORITY-RATED

FOR ESSENTIAL NEEDS

Pres. Pow Progressing Nicely

Am still making steady progress in recovery and hope before long I will be permitted to extend my exercise beyond walking, to which it is now limited, writes R. B. Pow, SOGES head.

Millburn Resigns From Honeymead

I have resigned my position with Honeymead Products Co.—Russell B. Millburn, Cedar Rapids, Ia.

Mr. A. E. Sorenson succeeds Mr. Millburn at Honeymead.

Will Miss Jim Mackenzie

It was thoughtful of the SOGES to remember our old friend and associate, Jim Mackenzie, in the way they did. We know he will be mourned by many friends in the trade on both sides of the border.—J. C. Hughson, Gen'l Sup., Toronto (Ont.) Elevators, Ltd.

Generally an excuse is nothing but a confession.

HIGH CAPACITY GRAIN CLEANING EQUIPMENT for TERMINAL ELEVATORS!

Hart-Carter normally offers a complete line of special, heavy-duty cleaners for terminal elevators. Included are the 2564 Carter Disc-Cylinder Separator, combining discs and cylinders; and the all-cylinder 45 Hart Uni-flow Grain Separator. These machines offer a profit-

able answer to whatever cleaning, grading, separating or processing jobs you may be called on to handle.

HART-CARTER COMPANY

670 Nineteenth Ave. N.E.

Minneapolis, Minn.

TO PASS 600 MARK

THE spontaneous enthusiasm reflected by the sizable influx of new members into the Superintendents' Society is highly gratifying, writes R. B. Pow, Reliance Grain Co., Ltd., Fort William, SOGES president. "Little did I dream that the membership would get behind its officers so noticeably and do such a grand job.

"Swelling the association's ranks just for the sake of being able to talk about size, to our way of thinking, is not desirable. But growing healthily so that our usefulness may be spread not only over wider areas



but in bigger proportions, is the correct and lasting pattern to follow, we think.

"Most of the new membership joining hands with us since our last convention have become interested in SOGES either

because of having the association discussed by some active member, or through reading some report of our activities which interested them," President Pow reports.

"We want all Supers to know they are cordially invited to partake of our activities, undertakings and responsibilities just as quickly as they can decide to become a permanent adjunct in the only technical trade association serving the profession of their own choosing. That's where all belong!

"We're getting along in grand style," he says happily. "Our Chapters, for the most part, are doing an improved job; our Safety Contest is progressing admirably, and our big annual convention is now 'on the boards'. And let me again emphasize the remarks of our Vice Presidentwhether you are a member or not, we welcome you to look in on our convention before making up your mind to add your name to this welcome list of recently joining members":

564 Ernest O. Ohman, Osborne-McMillan Elevator Co., Minneapolis. 565 Herbert L. Wilkins, Minneapolis Mills, A-D-M Co., Minneapolis.

566 Clare W. Cornelison, Dickinson Feed Mill, A-D-M Co., Minneapolis. 567 Al E. Lundquist, Innis Speiden & Co., Chicago.

568 Harry Hanson, The Glidden Co., Chicago.

Co., Ltd., Pt. Arthur.

* 569 Harry R. Press and 570 M. Earl Ott, Lakeside Metal Service, Inc., Chicago.

571 John DeHerr, Ass't Supt., Columbia Malting Co., Chicago.

572 Ted P. Suplee, John A. Roebling's Sons Co., Minneapolis. 573 W. V. Barker, W. V. Barker & 574 Delmond Sensenbaugh, Spencer Kellogg & Sons, Decatur, Ill.

575 Henry John Anderson, Bunge Elevator Corp., Minneapolis.

576 Louis A. Koch, American Miller, Chicago.

577 D. D. Dunlap, W. D. Allen Mfg. Co., Chicago.

578 Donald W. Bowden, Materials Handling Equipment Co., Chicago. 579 Ray M. Seeker, Anheuser-Busch, Inc., St. Louis.

580 Chester Hammerstein, Anheuser-

Busch, Inc., St. Louis. 581 Clyde W. Clark, Anheuser-Busch, Inc., Springfield, Mo.

582 Louis Harff, International Milling Co., St. Louis Park, Minn.

583 Glen E. McKinnon, Archer-Daniels-Midland Co., St. Louis Park, Minn.

584 Abraham Tyler, Fleischmann

Malting Co., Chicago. 585 Conrad Erickson, Three Rivers (Que.) Grain & Elevator Co., Ltd.

Reinstated

55 Robert J. Sayre, Norris Grain Co., Chicago.

"My personal reflection, considering the fourteen new or reinstated members joining the fold since last month, is that we'll be well over the 600 mark two months before our Chicago convention, June 15-16-17th. To me this indicates an intensified interest in the solution of current problems best accomplished by collective effort," President Pow concludes.

Forsell Steals Lead Again

Lloyd Forsell, active Chicago Chapter vice president, again spurted ahead of Jim Auld and Cliff MacIver, strong contestants in the Superintendents Society's new membership campaign. Auld is Minneapolis Chapter secretary, and MacIver is

MEET THE AXEES The Gremlins of Accidents



Zany thinks he's oh, so cunning With his rough and reckless funning, But he causes, with his clowning, Shootings, broken bones and drowning. It is neither brave nor brainy To be a joker a la Zany.

NATIONAL SAFETY COUNCIL

Twin City Chapter vice president and a director of the parent body.

Last month all three of these contestants were tied for first place with six new members apiece to their credit, and rumors are afloat that the Gopher state boys are plotting to corner contestant Forsell at the rail, but says the leader: "They've got to catch up with me first."

In addition to the top three producers, others along the line have contributed material to the gratifying increase in the ranks of the membership, not to mention five new names appearing this month for the first time, to-wit:

10-Lloyd Forsell, Chicago

7-James Auld, Minneapolis 6-Cliff MacIver, Minneapolis

4-Jim Kier, Kansas City

3-Gil Lane, Chicago

2-Fred Myers, Indianapolis 2-Harold Wilber, Decatur, Ill.

2—Andrew Rankine, Montreal

2-Ben Danielson, Chicago 1-Frank Jost, Chicago

1-Herb Brand, Cedar Rapids

1-R. J. Lane, Jersey City 1-Ralph Wilson, Chicago

1-Emil Buelens, Chicago

1—John Long, Chicago

1-Fred Sibbald, Fort William 1-Maynard Losie, Minneapolis

1-E. R. Anderson, Chicago

1-Gordon Laugen, Chicago

48-Total

CHICAGO BOOSTS ITS LEAD

Threatened over being "snowed under" by the big avalanche of new membership activity emanating from their staunch Minneapolis Chapter competitors and fearful of being totally "blacked out" in a year when they are scheduled to play convention city host, the Chicago Chapter has been staying awake nights figuring out exactly how to best cope with their disturbing situation. Latest accomplishments are very frankly credited up to a highly successful "Associates' Night" affair, "but", they say, "we can't have one of those every month to keep us in the lead."

Unwilling to rest upon their laurels, the Windy City Chapter, alarmed at the small margin of three which separated them from the Minneapolis Chapter record, is now laying plans for further accomplishments to augment their recent gains. "We'll sure have our heads down at convention time if the Minneapolis boys come here to receive the honors as the most active group," they say. "Wouldn't that be embarrassing? Here's how they stood as "GRAIN" goes to press:

20—Chicago

13-Minneapolis

10-Non-Chapter

4-Kansas City 1-Ft. William-Pt. Arthur

0—Omaha-Council Bluffs

48-Total



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